

Work Order ID 72279

Thursday, July 21, 2011 8:00:23 AM

Page 1

Item ID: D2600-7-140

Accept

Setup Start

Revision ID:

Stop

Item Name: EXT. "I BEAM" THICK

Start Date: 7/21/2011 Start Qty: 170.00

Cust Item ID:

Required Date: 8/10/2011 Req'd Qty: 170.00

Customer:

Reference:

Approvals:

Process Plan: CLDate: 11/07/21

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2600

Rev D1

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 14541 ☐ a) Extrude as per Dwg D2600 ☐ b) Material:
6061-T6 (QQ-A-200/8) ☐ c) Minimum yield tensile strength = 35 ksi ☐ d)
Minimum ultimate tensile strength = 40 ksi ☐ e) Minimum elongation = 8% ☐ f)
Order at 140" long ☐ g) Caradon Indalex Tool

CL 11/07/21 170

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

CL 11/08/19 170

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Check Pull test per Dwg D2600 for compliance page attached Check hardness
with Webster tester

S Woodas(170)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 72279

Thursday, July 21, 2011 8:00:23 AM



Page 2

Item ID: D2600-7-140

Accept



Setup Start



Revision ID:

Stop



Item Name: EXT. "I BEAM" THICK

Start Date: 7/21/2011 Start Qty: 170.00



Cust Item ID:

Required Date: 8/10/2011 Req'd Qty: 170.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	Identify as per dwg & Stock Location: _____	0.00							
Packaging	Memo	0.00							
Packaging	Pull out QM + 20 webs for spot inspection 6/21/23								
140 	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

11-68-25

11/8/25
CL11108125

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

Thursday, July 21, 2011 8:00:21 AM

Page 1

Work Order ID: 72279

Parent Item: D2600-7-140

Parent Item Name: EXT. "I BEAM" THICK




Start Date: 7/21/2011

Required Date: 8/10/2011

Start Qty: 170.00

Required Qty: 170.00

Comments: IPP A: ☐ 04.11.25 ☐ New Issue KJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-7-140P  EXT. "I BEAM" THICK		Purchased	No			100	Each	0.0000	1	170			



0211108119 170

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>DA</i>	DRAWN BY <i>DA</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>AS</i>	DRAWING NO. D2600	REV. D SHEET 1 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1
A	97.01.21	NEW ISSUE	
B	97.09.09	CHANGE MATERIAL SPEC.	
C	98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	
D	98.08.20	INCREASE MIN. UTS TO 40 KSI	
DI	01.04.17	ADD PART NUMBERS & DIE NUMBERS <i>+CP</i>	

RELEASED
98.08.25 DS

GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi
MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES.

2. BREAK ALL SHARP CORNERS 0.010 MAX.
3. NO TOOLING MARKS.
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS ARE IN INCHES.

CR 1107/21
W10: 72279

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

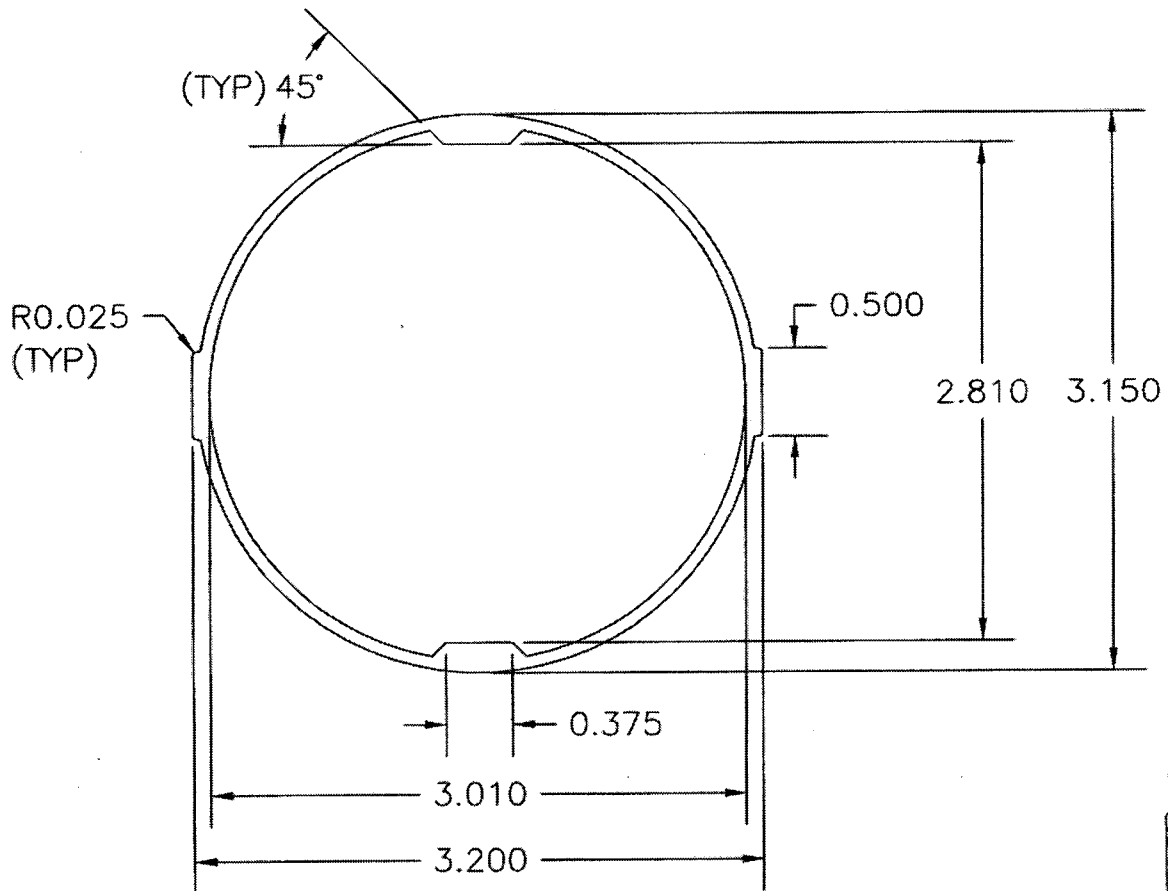
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



DESIGN	DW	DRAWN BY	DW	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA
CHECKED	WE	APPROVED	DI	DRAWING NO. D2600
DATE	98.08.20	TITLE	EXTRUSION	REV. D SHEET 2 OF 5
		SCALE	1:1	



RELEASED
98.8.25 DS

D2600-1

MANUFACTURED WITH CARADON INDALEX DIE # MH-18870

OR BON L DIE # 897121 (PREFERRED CHOICE)

PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-1-160 IS 160" LONG)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

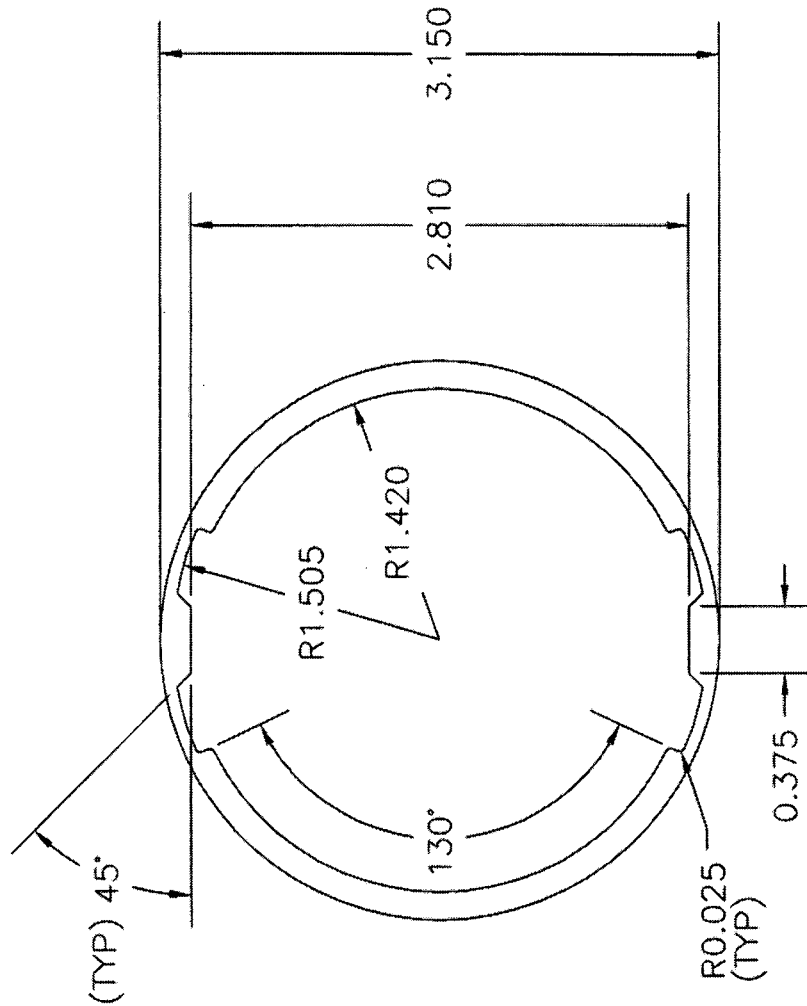
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>DIB</i>	DRAWN BY <i>DIB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>SA</i>	DRAWING NO. D2600	REV. D SHEET 3 OF 5
DATE 98.08.20	TITLE EXTRUSION		SCALE 1:1

RELEASED
98.8.25 DS



D2600-3

MANUFACTURED WITH CARADON INDALEX DIE # MH-18859

OR BON L DIE # 897122 (PREFERRED CHOICE)

PART NUMBER IS D2600-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-3-170 IS 170" LONG)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

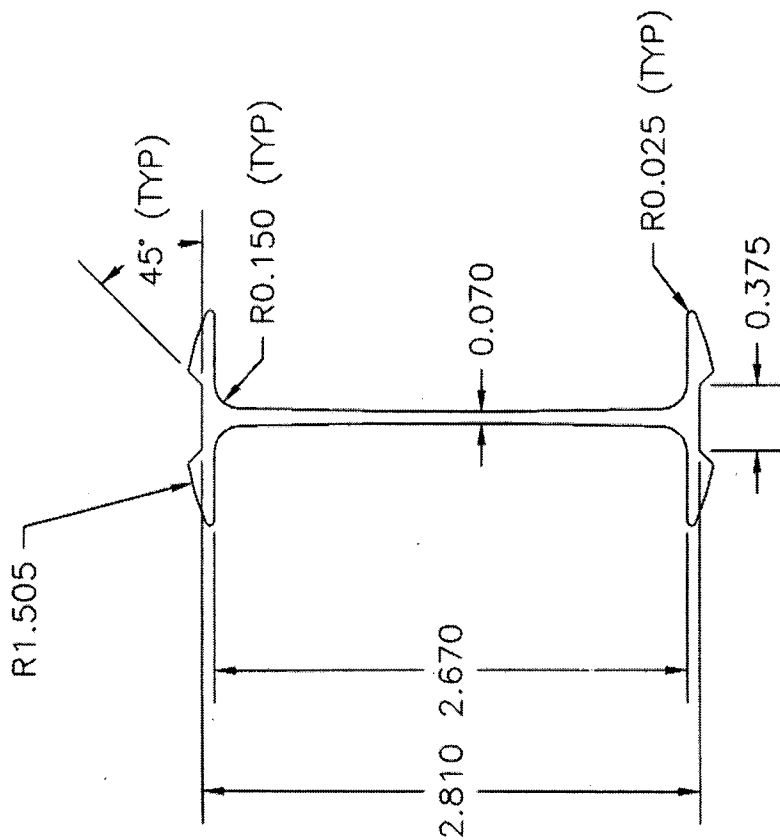
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2600	REV. D SHEET 4 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

RELEASED
98.8.25 DS



D2600-5

MANUFACTURED WITH CARADON INDALEX DIE # MS-18871

PART NUMBER IS D2600-S-XXX WHERE XXX IS CUT LENGTH IN INCHES
(EG. D2600-S-108 IS 108" LONG)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

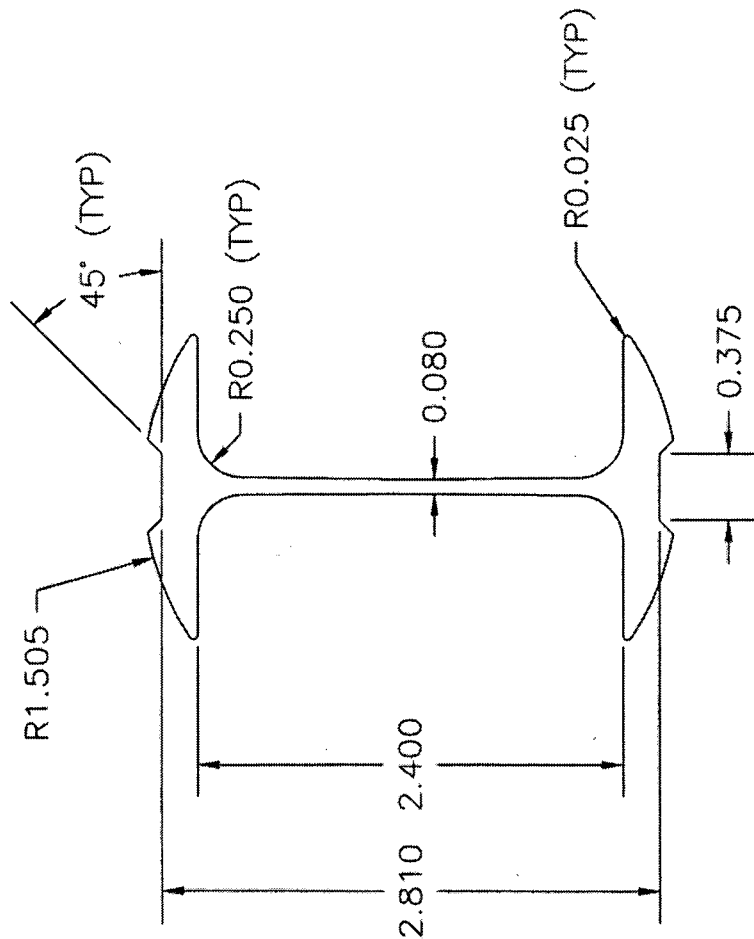
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>MM</i>	DRAWN BY <i>MM</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>AS</i>	DRAWING NO. D2600	REV. D SHEET 5 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

RELEASED
98.8.25 DS



D2600-7

MANUFACTURED WITH CARADON INDALEX DIE # MS-18872
PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES
(EG. D2600-7-125 IS 125" LONG)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO14541

Purchase Order Date 7/21/2011

PO Print Date 7/21/2011

Page Number 1 of 1

Order From :

VC-SAP001

SAPA CANADA INC
LOCKBOX B9427
PO BOX 9100
POSTAL STATION F
TORONTO, ONTARIO M4Y 3A5
CANADA

Contact Name

Vendor Phone 800 563 5120

Vendor Fax 800 563 8310

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

CL 11/07/21

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2600-7-140P	EXT. "I BEAM" THICK	8/10/2011 Yes	170.00 Each	Yours ppd	\$13.2353	\$2,250.00

CL 11/08/19

Special Inst: EXTRUDE AS PER DWG D2600 REV. D
B72279
MATERIEL: 6061-T6 AS PER QQ-A-200/8
MINIMUM YIELD TENSILE STRENGTH
= 35 KSI
MINIMUM ULTIMATE TENSILE
STRENGTH = 40 KSI
MINIMUM ELONGATION = 8%
140" LONG
SAPA CANADA DIE # MS-18872

PO Total:

\$2,250.00

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 7/21/2011

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Sapa Canada, Inc.
Adresse Postale 325, rue Avro
Pointe-Claire, Québec H9R 5W3
Téléphone: (514) 697-5120
Télécopieur: (514) 694-8310

sapas:

EXPÉDIÉ / SHIP TO

INDICATIONS SPÉCIALES
SPECIAL INSTRUCTIONS

9/58-198795

NOTRE NUMÉRO DE COMM.
OUR ORDER NO.

10745.20

CERTIFIED
ISO 9001:2008

MÉMIE

62-1187

15457

385731 4058

PROD:

Remitted Date:

N° DU CLIENT CUST. NO.		T.P.S. G.S.T.		TAXE DE VENTE PROV. PROV. SALES TAX		N° DE COMM. DU CLIENT CUST. ORDER NO.		DATE DE COMMANDE ORDER DATE		NOTRE DATE DE COMMANDE OUR ORDER DATE		CONDITIONS TERMS	
Vendeur SALESMAN		PAYÉ PPD.		PERC COL.		C.A.B. C.O.D.		F.A.B. F.O.B.		EN BALLOTS BUNDLED AND TAPED		CARTONNÉS CARTONED	
		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
ITEM NO.	COMMANDE / ORDERED	POIDS WEIGHT	PÈCES PIECES	N° DE MATRICE SAPA DIE NO.	DESCRIPTION DU CLIENT CUSTOMER DESCRIPTION	ALLIAGE ET TREMPAGE ALLOY AND TEMPER	LONGUEUR LENGTH	PRIX UNITAIRE UNIT PRICE					
					EXTRUDE ONLY								
					DUE=2011/08/31 AU10NS								
1	913	170	MS 10072 D2600-7	6061 T6	3556								
			D-2600-7 HEAVY DUTY										
			BUNDLE= 902234 902235 902316										
We hereby certify that the material supplied meets the chemical properties as published by the Aluminum Association, and requirements of our Quality procedures													
Q11108119													
19/08/2011													

[illegible]

FORM 118XF REV 04/10

**FEUILLE D'EMPAQUETAGE
PACKING SLIP**

LES MARCHANDISES CI-DESSUS ONT ÉTÉ REÇUES EN BONNE ET DUE FORME
THE ABOVE GOODS WERE RECEIVED IN GOOD ORDER

325 rue Avro
Pointe-Claire, QC, Canada H9R 5W3
Téléphone (514) 697-5120
Fac-simile (514) 694-8310

sapa

Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**

Adresse / Address : **1270 ABERDEEN STREET
HAWKESBURY ONT,
K6A 1K7**

commande Sapa / Sapa order # : **1071579**

bon de commande / Purchase order # : **14541**

de matrice / Die # : **MS 18872**

Description : **D-2600-7 Heavy Duty Web**

Alliage & trempage / Alloy & temper : **6061 T6**

Customer Part #: **D2600-7**

Contrôle / Control # : **49589-1**

Coulée / Cast # : **51731**

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	43,023
Contrainte élastique Yield stress (psi)	35 000	37,981
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	92

S
11/08/23

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	---	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,
Yours truly,

date : **2011-08-01**



Gilles Pelletier
Technicien de la qualité
Quality technician